UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

64107

7590

01/07/2009

KOKKA & BACKUS, PC 200 PAGE MILL ROAD SUITE 103 PALO ALTO, CA 94306

EXAMINER				
CHEN, QING				
ART UNIT PAPER NUMBER				
2191				

DATE MAILED: 01/07/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,021	02/03/2004	Jonas Hogstrom	BORL/0217.00	2020

TITLE OF INVENTION: DEVELOPMENT SYSTEM WITH METHODOLOGY FOR RUN-TIME RESTORATION OF UML MODEL FROM PROGRAM CODE

AP	PLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nor	nrovisional	NO	\$1510	\$0	\$0	\$1510	04/07/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ar in m

ppropriate. All further adicated unless correcte anintenance fee notificat	correspondence including ed below or directed oth tions.	g the Patent, advance or erwise in Block 1, by (a	rders and notification a) specifying a new co	of m orresp	aintenance fees woondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspond rate "FEE	ence address as ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.						
64107	7590 01/07.	/2009	•				of Mailing or Transı	nission	
KOKKA & BA 200 PAGE MILI SUITE 103				I here State addre trans	eby certify that this Postal Service wessed to the Mail	s Fee(s ith suf Stop	s) Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the da	deposited t class mail above, or	with the United l in an envelope being facsimile d below.
PALO ALTO, C	A 94306		1				<u> </u>		(Depositor's name)
									(Signature)
									(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENT	ГOR		ATTO:	RNEY DOCKET NO.	CONFIRM	MATION NO.
10/708,021	02/03/2004	•	Jonas Hogstrom		•	I	BORL/0217.00		2020
ROGRAM CODE		SYSTEM WITH METH							
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE		ATE DUE
nonprovisional	NO	\$1510	\$0		\$0		\$1510	04	1/07/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS						
CHEN,	QING	2191	717-104000						
Change of correspondence address or indication of "Fee Address" (37 FR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		(1) the names of u or agents OR, alterically (2) the name of a segistered attorney 2 registered patent	2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is 3 listed, no name will be printed.						
PLEASE NOTE: Unle	ess an assignee is identi h in 37 CFR 3.11. Comp	A TO BE PRINTED ON The fied below, no assignee eletion of this form is NO	data will appear on th	ne par g an a	tent. If an assignessignment.			ocument ha	s been filed for
lease check the appropri	iate assignee category or	categories (will not be pr	inted on the patent):		Individual 🖵 Co	rporati	on or other private gro	up entity [Government
	are submitted: To small entity discount p # of Copies	ermitted)	 Payment of Fee(s): (1) A check is enclosed Payment by credit The Director is here overpayment, to D 	ed. t card reby	. Form PTO-2038 authorized to char	is atta	.ched. required fee(s), any de	ficiency, or	
_ ` .	tus (from status indicated s SMALL ENTITY statu		☐ b. Applicant is no	long	er claiming SMAI	L ENT	ΓΙΤΥ status. See 37 CF	R 1.27(g)(2).
OTE: The Issue Fee and	d Publication Fee (if requ	nired) will not be accepted tes Patent and Trademark	d from anyone other th						
Authorized Signature					Date				
Typed or printed name					Registration N	o			
his collection of information application. Confident abmitting the completed his form and/or suggestions 1450, Alexandria, Volexandria, Virginia 223	tiality is governed by 35 I application form to the ons for reducing this but irginia 22313-1450. DC	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the NOT SEND FEES OR (on is required to obtain 1.14. This collection is depending upon the in e Chief Information Of COMPLETED FORM	or re s esti ndivi fficer S TO	tain a benefit by the mated to take 12 ndual case. Any co y, U.S. Patent and THIS ADDRESS	ne publ ninutes mment Traden . SENI	ic which is to file (and to complete, includin s on the amount of tin ark Office, U.S. Depa D TO: Commissioner f	by the USI g gathering ne you requirement of Cor Patents,	PTO to process), preparing, and ire to complete Commerce, P.O. P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.	
10/708,021	02/03/2004	Jonas Hogstrom	BORL/0217.00	2020	
64107 75	590 01/07/2009		EXAM	INER	
KOKKA & BACKUS, PC		CHEN, QING			
200 PAGE MILL I	ROAD		ART UNIT	PAPER NUMBER	
SUITE 103 PALO ALTO, CA 94306		2191			
			DATE MAILED: 01/07/2009		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 628 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 628 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)			
	10/708,021	HOGSTROM ET AL.			
Notice of Allowability	Examiner	Art Unit			
	Qing Chen	2191			
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comm IGHTS. This application is and MPEP 1308. on October 20, 2008.	in this application. If not included nunication will be mailed in due course. THIS			
2. The allowed claim(s) is/are <u>1-6,8-28,30-47 and 49-63, renu</u>					
 Acknowledgment is made of a claim for foreign priority ur All b)	be been received. been received in Applicat cuments have been received of this communication to fi	ion No ed in this national stage application from the			
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 					
5. CORRECTED DRAWINGS (as "replacement sheets") mus	st be submitted.				
(a) including changes required by the Notice of Draftspers	•	ew (PTO-948) attached			
1) ☐ hereto or 2) ☐ to Paper No./Mail Date					
 (b) including changes required by the attached Examiner's Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the state of the sheet. 	.84(c)) should be written on	the drawings in the front (not the back) of			
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview 5 Paper No 7. ☑ Examiner'	nformal Patent Application Summary (PTO-413), ./Mail Date s Amendment/Comment s Statement of Reasons for Allowance			

Application/Control Number: 10/708,021 Page 2

Art Unit: 2191

DETAILED ACTION

1. This Office action is in response to the amendment filed on October 20, 2008.

- 2. Claims 1-6, 8-28, 30-47, and 49-63 are pending.
- 3. Claims 1, 8, 9, 22, 23, 30, 31, 43, 49, and 50 have been amended.
- 4. Claims 7, 29, and 48 have been canceled.
- 5. **Claims 1-6, 8-28, 30-47, and 49-63** are allowed, renumbered as 1-60.

Examiner's Amendment

6. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Abigail E. Lighthart (Reg. No. 62,624) on December 31, 2008.

The application has been amended as follows:

AMENDMENTS TO THE CLAIMS

Please amend Claims 22, 23, and 43 as follows:

22. (Currently amended) A downloadable set of processor-executable instructions for performing the <u>improved</u> method of claim 1 stored on a computer-readable medium.

Application/Control Number: 10/708,021

Art Unit: 2191

23. (Currently amended) In a computer system, an improved system for developing and

Page 3

executing an application, the improved system comprising:

a computer system having a processor and memory;

a modeling tool for creating a model describing business objects and rules of the

application;

a module for creating source code for the application and representing the model within

the source code of the application itself, wherein the model is represented as source code and

code attributes;

a compiler for compiling the source code into an executable application; and

a run-time framework that is able to, while the executable application is running,

reconstruct the model from the representation incorporated into the executable application and

use it for providing services, including reading metadata incorporated into the executable

application using reflection to create a graph of code elements and spanning the graph for re-

creating the model based on code elements encountered.

43. (Currently amended) A method for developing and executing an application on a

computer system, the method comprising:

creating a model for developing an application using Unified Modeling Language (UML)

technique;

generating source code of the application to implement the model;

amending the source code of the application for storing model information in the source code of the application itself as source code and code attributes;

compiling the amended source code into an executable application and running the executable application on the computer system;

while the executable application is running, reconstructing the model from the model information incorporated into the executable application, including reading metadata incorporated into the executable application using reflection to create a graph of code elements and spanning the graph for re-creating the model based on code elements encountered; and

making the reconstructed model available for supporting operation of the executable application, including rendering the reconstructed model for display.

-- END OF AMENDMENT --

Reasons for Allowance

7. The following is an Examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, "creating source code for the application, including representing the model within the source code of the application itself, wherein the model is represented as source code and code attributes" and "while the executable application is running, reconstructing the model from the representation incorporated into the executable application and making it available to the run-time framework, including reading metadata incorporated into the executable application using reflection to create a graph of code elements and spanning the graph for re-

Art Unit: 2191

creating the model based on code elements encountered" as recited in independent Claim 1; and further fail to teach, in combination with the other claimed limitations, similarly-worded limitations recited in independent Claims 23 and 43.

The closest cited prior art, the combination of US 6,199,195 (hereinafter "Goodwin") and US 7,000,219 (hereinafter "Barrett"), teaches automatically generating source code objects within extensible object frameworks and links to enterprise resources. However, the combination of Goodwin and Barrett fails to teach "creating source code for the application, including representing the model within the source code of the application itself, wherein the model is represented as source code and code attributes" and "while the executable application is running, reconstructing the model from the representation incorporated into the executable application and making it available to the run-time framework, including reading metadata incorporated into the executable application using reflection to create a graph of code elements and spanning the graph for re-creating the model based on code elements encountered" as recited in independent Claim 1; and further fails to teach similarly-worded limitations recited in independent Claims 23 and 43.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/708,021 Page 6

Art Unit: 2191

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

Application/Control Number: 10/708,021 Page 7

Art Unit: 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191